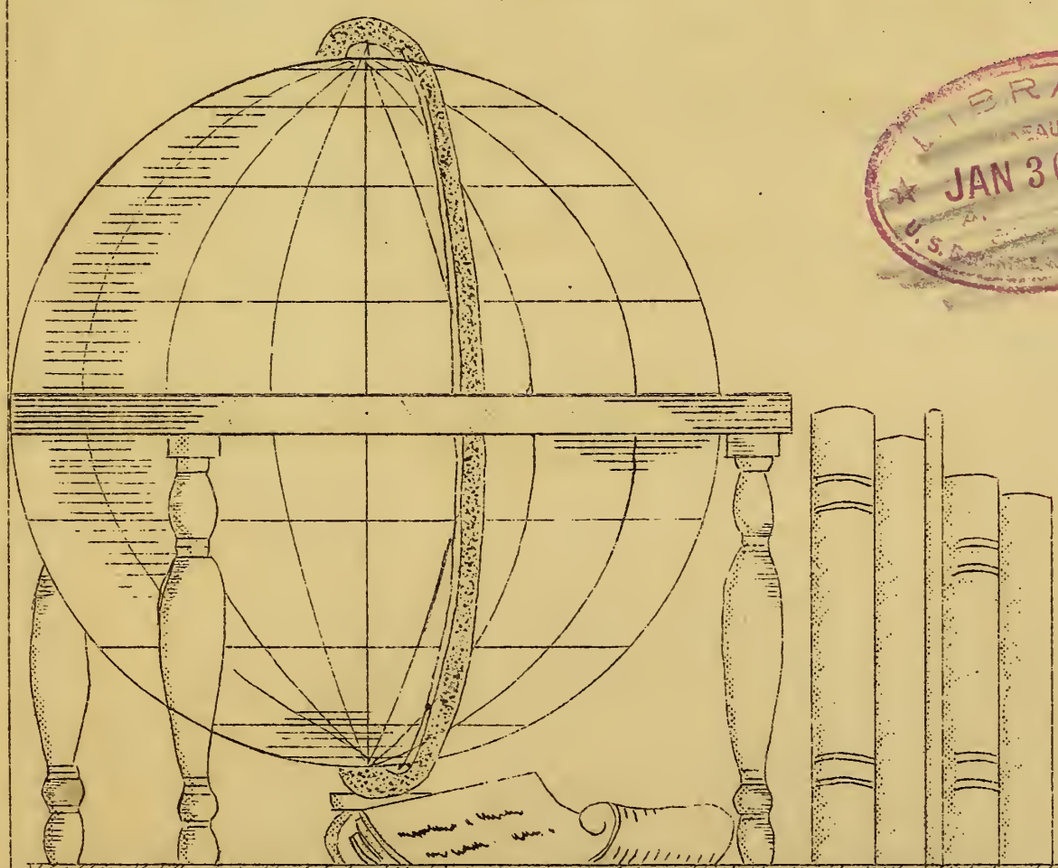
S O I L C O N S E R V A T I O N L I T E R A T U R E

SELECTED CURRENT REFERENCES

V.4 January/February, 1940 No.1



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From Publications Received In The

United States Department of Agriculture Library, Washington, D.C.

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Field office requests for loans should be submitted by letter through the Regional Office libraries. Complete citations, together with source of references, should always be included.

Washington office requests should be submitted on Form SCS-405, which will be supplied by the Library on demand.

Mildred Baxter
Librarian

PERIODICAL ARTICLES

Agricultural Surveys

Jessen,R.J. An experiment in the design of agricultural surveys. Jour.Farm Econ.21(4):856-863,fig.,tables. November 1939.

American Association for the Advancement of Science

American association for the advancement of science; Abstracts of section E, December,1938, meeting at Columbus. Geol.Soc.Amer.Bul. 50(12,part 2):1975-2015. Dec.1,1939.

Abstracts of papers of possible interest are as follows:Land use and flood control,by J.S.Cutler,p.1977;Comprehensive flood control plan for the Ohio river basin,by L.A.Pick,pp.1986-1987;Role of soil conservation districts in land use in Michigan,by P.M.Barrett,p.1995; Seasonal regime of land use,a factor in determining soil moisture conditions,by O.E.Guthe,p.1998;Mutual problems of conservation:engineering and geology,by M.L.Nichols and Bruno Klinger,p.2001; Classes of land according to use capability,by E.A.Norton,pp.2001-2002;Soil conservation problems in the great lakes basin of Ohio, Indiana,and the lower peninsula of Michigan,by A.H.Paschall,pp.2002-2003;Landslides in relation to agricultural and engineering problems, by C.F.Stewart Sharpe,p.2009;Soil conservation in western Canada,by L.B.Thomson,p.2012.

Cover Crops

McClintock,J.A. Desirable cover crop and mulch crop mixtures. Hoosier Hort.21(9):135-140,figrs. September 1939.

Watson,J.R. Cover crops and their relation to citrus insects. Citrus Indus.20(7):10-11. July 1939.

Dams

Crooked Creek Dam nears completion.Another link is forged in the chain of flood-control dams protecting Pittsburgh and the Upper Ohio River Valley. Earth Mover 26(11):9-13,40,illus. November 1939.

Fitzgerald,O.A. Beaver are cheap workmen. Wash.Farmer 64(18): 435,illus. Aug.31,1939.

Compares costs of beaver dams with man-made dams.

Jerman,I.D. Grassy Lake dam.Upper Snake River storage project,Idaho-Wyoming. U.S.Bur.Reclam. Reclam.Era 29(12):340-345,illus.,map. December 1939.

Drought

Noll,W.C. Environment and physiological activities of winter wheat and prairie during extreme drought. Ecology 20(4):479-506,figrs., tables. October 1939.
"Literature cited,"pp.505-506.

Pool,R.J. Some reactions of the vegetation in the towns and cities of Nebraska to the great drought. Torrey Bot.Club Bul.66(7):457-464. October 1939.

Dune Fixation

Lukin,Robert. Reclaiming a Scottish Sahara. Country Life [London] 86(2223):198-199. Aug.26,1939.
Tells of the tract of land known as the Culbin Sands - "the nearest approach to a desert in the British Isles",under which lies the once fertile estate of Culbin - and the efforts of the Forestry Commission to prevent further encroachment of the sand and to recover and replant the abandoned land.

Moretti,O. Reseña de los trabajos sobre fijacion de dunas en el vivero dunicola "Florentino Ameghino",de Miramar(Prov.de Buenos Aires). [Report on the fixation of dunes at the Florentino Ameghino Dune Station,Miramar,Province of Buenos Aires.] Rev.Arg.Agron.6(1): 62-64,illus. March 1939.
"At the Miramar Dune Research Station,created in 1937,there has been undertaken the consolidation of 600 hectares of shifting sand dunes,of which over 100 hectares may already be considered as reclaimed.Of the herbaceous plant species employed preference has been given to the indigenous species such as Adesmia incana,Panicum racemosum,Plazia argentea,etc. and to the exotic species Arundo arenaria and Mesembryanthemum edule(?).-A.M.F." Imp.Bur.Pastures and Forage Crops.Herbage Abs.9(4):335. December 1939.

Parodi,L.R. Psammophytes argentines qui peuvent etre employees pour fixer les dunes [Argentine psammophytes which may be used for the consolidation of dunes.] Rev.de Bot.Appl.19(214):389-395. June 1939.
"A slightly abridged French version of an article appearing in Jornadas Agron.Vet.1937. See Herb.Abstr.9. Abs.272. 1939.-G.M.R." Imp.Bur.Pastures and Forage Crops Herbage Abs.9(4):335. December 1939.

Farm Forestry

Baldwin,H.I. The woodlot has its place. Free Amer.3(9):8-11. September 1939.

Bennett,H.H. Cooperative farm forestry - another avenue to better land use. Soil Conserv.5(6):135-137,163,illus. December 1939.

Herbert,P.A. Public agencies in farm woodland forestry. Jour.Forestry 37(12):915-919. December 1939.
"This subject is important because it pertains to the practice of forestry on approximately 180,000,000 acres of valuable forest land located on about 5,000,000 farms.The subject is timely because in every state the public agency principally responsible for farm forestry admittedly has not obtained the practice of forestry on the bulk of the farm woodlands,and because other public agencies,first the U.S.Forest Service and now the Soil Conservation Service,have assumed new roles in this field."

Farm Ponds

Johnson,P.H. Water clover.A multiple-purpose plant for farm ponds. U.S.Soil Conserv.Ser.Upper Miss.Reg.Milwaukee,Wis. Tech.Sup.to Prog.Exch. pp.6-7. Dec.9,1939.

Field Plat Experiments

Bibliography of field experiments. Amer.Soc.Agron.Jour.31(12):1049-1052. December 1939.
"The committee has compiled a bibliography of 82 titles of the more important contribution on the methodology of and interpretation of results of field plat experiments,either reported since or not included in the revised bibliography published in the Journal (Vol.25:811-828,1933;and the additions in Vol.27:1013-1018,1935; Vol.28:1028-1031,1936;Vol.29:1042-1045,1937;Vol.30;1054-1056,1938)."
The committee is composed of F.R.Immer,H.M.Tysdal and H.M.Steece, Chairman.

Floods and Flood Control

Bennett,C.S. Elevation control for improvements in floodwater check reservoirs. Engin.News-Rec.123(19):622,illus. Nov.9,1939.
"In order to prevent undue damage to structures during high-water periods in the five floodwater check reservoirs of the Miami Conservancy District,the engineers have decreed that no building can take place below a contour five feet below the crest of spillways. They have placed in the area a system of benchmarks which make it unnecessary to run more than a half mile of levels to obtain the floodwater elevation at a proposed building site."

Flood control work defended. Engin.News-Rec.123(21):35. Nov.23, 1939.
"Brief in Supreme Court points out constitutionality of Denison Dam project."

Foster,L.J. Storm causes floods below Boulder Dam. Engin.News-Rec.123(23):753-754. Dec.7,1939.
Gives rainfall records at Yuma,Arizona and Imperial,California for certain days in September 1939.

Lynch,H.B. Transient flood peaks. Amer.Soc.Civ.Engin.65(9):1605-1624,figrs.,tables. November 1939.

"Floods of the so-called'cloudburst'type yield momentary runoff peaks entirely out of proportion to the rate of rainfall.They are caused by an abrupt increase in rainfall and runoff.Their magnitude is controlled by many factors,of which probably the most important are the rate of increase and the intensity of the rainfall.One of the most noteworthy examples of this type of flood was the flood near Los Angeles,Calif.,on the morning of January 1,1934.

"The more detailed study from which this paper was prepared has been placed on file for reference at Engineering Societies Library."

Richards,B.D. Further note on flood-hydrographs. Jour.Inst.Civ. Engin. no.8:504-520,figrs. October 1939.

Paper No.5206.

Short,Dewey. Flood control and its assistance to reclamation. U.S.Bur.Reclam. Reclam.Era 29(12):333-334. December 1939.

Trainor,C.F. The use of Weather Bureau data in flood control studies of the Savannah,Ga.,Engineer District. Amer.Met.Soc. Bul.20(10):426-428. December 1939.

Fluid Mechanics

Doeringsfeld,H.A. Pressure-momentum theory applied to the broad-crested weir. Amer.Soc.Civ.Engin.Proc.65(10):1719-1731,figrs., tables. December 1939.

"The general theory of pressure momentum,and its application to the broad-crested weir,is presented in this paper,with data obtained by test.The purpose of the experimental work was to check a formula for flow over the weir developed on the basis of conservation of momentum.The application also applies to the sharp-edged entrance to flumes from reservoirs."

Durand,W.F. Outlook in fluid mechanics. Franklin Inst.Jour.228 (2):183-212. August 1939.

"General non-mathematical discussion of characteristics of laminar and turbulent flow of fluids,indicating necessary and promising lines of progress." Civ.Engin.9(12):21. December 1939.

Towle,W.L.,Sherwood,T.K.and Seder,L.A. Effect of screen grid on the turbulence of an air stream. Ind.Eng.Chem.31(4):462-463,illus. April 1939.

"Literature cited,"p.463.

"The technique developed for measuring eddy diffusivities serves as an aid to the determination of turbulence in fluid flow.Although it might seem that the presence of a grid should increase turbulence in such a way as to speed up eddy diffusion it was found in the tests that it was decreased.The rate of diffusion is reduced because the eddies are smaller,even though the individual eddies may be rotating more rapidly,with larger deviating velocities as a result.The results show that normal flow conditions are restored about 45 diameters downstream from the grid.It checks the general

rule,familiar to engineers,that flow meters are best installed 50 diameters downstream from a bend or other disturbance in the line. - H.F.Babbitt." Amer.Waterworks Assoc.Jour.31(8):1442. August 1939.

von Buelow,F. Flow in open channels(Der Abfluss in eisernen Spundwandkanaelen) Bautechnik 17(17):248-250. Apr.21,1939.
"Discussion of roughness coefficient appearing in several accepted formulas of flow of water in open channels;experimental determination of roughness coefficient in models of open channels confined between walls of steel sheet piling." Civ.Engin.9(12):21. December 1939.

Wallis,R.P. Photographic study of fluid flow between banks of tubes. Engineering 148(3848):423-425,figrs. Oct.13,1939.

Ward,W.H. The flow of liquids through beds of granular solids. Engineering 148(3849):435-438,figrs. Oct.20,1939.

Forest Influences

Bates,C.G. A symposium on "Forest Influence" studies and methodology. Chron.Bot.5(2/3):184-188. Summer 1939.
At a meeting of U.S.Forest Service workers,held on the San Dimas experimental forest,February 12-27,1939,the following subjects were discussed:The infiltration capacity of soils:The value use of lysimeters:Measuring transpiration losses by hydrographs:Interception losses:Revegetation.

Okey,C.W. Studies on the influence of forests on mountain streams. Civ.Engin.9(12):744. December 1939.
Refers to article by R.A.Hertzler in August issue entitled "Engineering aspects of the influence of forests on mountain streams".

Grass

Ahlgren,H.L.and Aamodt,O.S. Harmful root interactions as a possible explanation for effects noted between various species of grasses and legumes. Amer.Soc.Agron.Jour.31(11):982-985,tables. November 1939.

Albrecht,W.A. Dangerous grass. Capper's Farmer 50(12):9,52,illus. December 1939.
Urges sound methods of grass farming thru soil-fertility restorative treatments requisite for good feed production and quicker and better soil cover.Soil treatments will serve the purposes of erosion control more effectively in the better cover developed more quickly.

Besley,H.E. Grassland farming. Agr.Engin.20(12):459-461,illus. December 1939.
"References,"p.461.
How agricultural engineers fit into the program of grassland farming.

A short bibliography on grasses, grasslands and fodders in India. Agr. and Livestock in India 9(3):290-300. May 1939.

"The Central Fodder and Grazing Committee in its first meeting held in Delhi in November 1937 recommended certain measures to obtain complete information regarding fodder and grazing situation in India. One such measure was to prepare a complete bibliography of what has been published in India about Indian grasses, grasslands and fodder trees. It was agreed that the bibliography should consist of two parts, i.e., (1) grasses, grasslands and fodder trees and (2) cultivated fodder, and that these two parts should be published as a combined list. The list, which is only preliminary, is separated into three sections showing references on fodder trees separately and is arranged in an alphabetical order."

Stevenson, T.M. and White, W.J. The comparative values of the Fairway variety and the standard types of crested wheat grass. Imp. Bur. Pastures and Forage Crops. Herbage Rev. 7(4):248-250, tables. December 1939.

"References," pp. 249-250.

Toole, V.K. Germination of the seed of poverty grass, Danthonia spicata. Amer. Soc. Agron. Jour. 31(11):954-965, tables. November 1939.

"Literature cited," p. 965.

"Poverty grass, Danthonia spicata (L.) Beauv., is a perennial with rather wide distribution on poor soils throughout the eastern United States. Because of the ability of this grass to grow on poor and eroded soil, it may have some value for erosion control work. Two samples collected in the Shenandoah National Forest by D.W. Levandowsky were submitted by M.M. Hoover of the Soil Conservation Service with the request that experiments be made to determine the germination requirements of this seed."

This article is, therefore, a report of the experiment.

Hawaii

Robyns, W., and Lamb, S.H. Preliminary ecological survey of the Island of Hawaii. Brussels Jard. Bot. Bul. 15(3):241-293. July 1939.

"There is very little information published in regard to ecology or plant sociology of Hawaii. This work presents a classification of natural plant formations and indicates successional changes which take place on the new lava flows and on areas wholly or partially devegetated from other causes.

"The ranchers of Hawaii are troubled by the invasion of Psidium Guajava and Lantana camara on pastures. The study of plant succession should facilitate natural means of control through cultural methods.

"The climax formations described include xerophytic plateau and mountain parklands, and xerophytic coastal-lowland and sub-alpine shrub. Although lava flows and clearing have been the chief initiators of succession from a bare site, grazing by domestic or feral mammals has affected more of the vegetation than all other causes. The effect of introduced grasses and forage plants on succession is discussed.-M.M." Imp. Bur. Pastures and Forage Crops. Herbage Abs. 9(4):334. December 1939.

Highway Erosion Control

Murphy,F.C. Erosion protection of highway cuts and embankments. Pt.1-Causes of erosion. Highway Mag.30:255-257,illus. November 1939.

Irrigation and Drainage

Denike,G.N. Development of irrigation projects in Saskatchewan. Agr.Engin.20(12):474-476,illus. December 1939.

Friedmann,Giovanni. La fertirrigazione;Nuovo metodo per incrementare l'economia della montagna.(Fertilization combined with irrigation; a new method of improving mountain husbandry) Riv.Forest.Ital.17 (7):27-40,illus. September 1939.
Article in Italian.
The new method of a fertilizing irrigation is as follows:
At the foot of the mountain,in the vicinity of stalls,special closed chambers are built in which animal excretion is kept and diluted into a fertilizing liquid.Water descending from a high elevation will assume a pressure which is communicated to another pipe ascending to the mountain.The water rising to the top is made to aspire the fertilizing liquid and to automatically irrigate mountain lands without the need of special pumps.

Hundreds of irrigation structures of creosoted wood on Nebraska project. Wood Preserv.News 17(11):133-137,illus. November 1939.

Hutchins,W.A. Water rights for irrigation in humid areas. Agr. Engin.20(11):431-432,436. November 1939.

Irrigation structures on the farm. Contributed by the State Rivers and Water Supply Commission,Victoria,Australia. Jour.Agr.Victoria 37(pt.10):463-466,figrs. October 1939.

Israelsen,O.W. Water-application efficiencies in irrigation and soil conservation. Agr.Engin.20(11):423-425,illus. November 1939.
The conclusions given are on observed results of irrigation practices in Utah valleys.

Lee,C.H. Testing program used to determine Treasure Island drainage procedure. Open drain ditches,cased wells and well-points studied to select most economical method for lowering water table and reducing salt content in hydraulic fill island for Exposition. West.Construct.News 14(7):230-234,illus.,tables. July 1939.
"Drainage problems of unusual character were involved in preparing the island site of the Golden Gate International Exposition for horticultural use.The investigations developed a fund of original data on various methods of lowering ground water,which might be applicable to other western drainage problems.This information was the subject of a paper by Mr.Lee at the American Road Builders Convention in San Francisco,and is presented here in slightly condensed form.A previous article(June,1938)has described the field operations of draining the island with well-points,based on the data reviewed in this article.-Editor"

Leverett,Frank. Stream capture and drainage shifting in the upper Ohio region. Jour.Geomorph.2(4):339-344,figrs. November 1939.

Sharp,L.T. Some notes on irrigation of lemon trees in California. Calif.Citrog.24(12):440,442,458,table. October 1939.

Work,Paul. Rocky Ford,Arkansas Valley,Land of irrigated onions, melons and vine seeds. Market Growers Jour.65(7):427-428,illus. Oct.15,1939.

Land Utilization

Allaband,W.A. The rehabilitation of families in maintenance workers units on the Pensacola land-use project. Soil Conserv.5(5):103-111. November 1939.

Cronin,F.D. Displaced families in the land utilization program. Southwest.Social Sci.Quart.20(1):43-57. June 1939.

Forster,G.W. Land use and the internal operation of farms. South. Econ.Jour.6(2):165-177,tables. October 1939.

In the discussion,use is made of preliminary results of a study designed to discover what,if anything,can be done to remedy the major defects of southern farm organization.This study now in progress is being conducted under the immediate direction of the Department of Agricultural Economics and Rural Sociology of the North Carolina Agricultural Experiment Station in cooperation with the Soil Conservation Service of the United States Department of Agriculture.

Lysimeter Studies

Gow,P.L. A lysimeter study of losses of applied potash by leaching from an acid soil. Hawaii.Planters Rec.43(4):263-276,tables,figrs. Fourth Quarter 1939.

"Literature cited,"p.276.

"This experiment was designed as part of a project which has as its purpose the evaluation of probable injurious effects upon Hawaiian cane lands of long continued fertilization with acid-forming fertilizers such as sulfate of ammonia."

Photogrammetry

Wright,M.S. The aerial photographic and photogrammetric activities of the Federal government. Photogrammetric Engin.5(4):168-176. October-November-December 1939.

Soil Conservation Service,pp.173-174.

Planning

Clark,Dale. The farmer as co-administrator. Pub.Opinion Quart.3(3): 482-490. July 1939.

Sketches briefly,the various devices by which the farm group is enabled to participate in public programs.This participation applies to policy formulation,program administration,and even to the educational process.

Johnstone,P.H. Somewhere else. U.S.Fur.Agr.Econ. Land Policy Rev.2 (6):1-9. November-December 1939.
"'Somewhere else,'if left ignored and unknown except as a vague dumping ground for unwanted problems,can well become the source of violence and despotic dealing.But 'somewhere else,' if intelligently explored and tolerantly dealt with,can also be the place where our agricultural problems will find their best and most democratic solution."

Kimmell,R.I. Planning for the Southern Great Plains. Soil Conserv. 5(5):120-122,illus. November 1939.

Making plans grow like plants. Land-use planning finds new roots in farmer-expert-administrator committees organizing in counties and States. U.S.Agr.Adjustment Admin. Consumers' Guide 6(7):3-6,illus. September 1939.

Parson,R.L. The responsibility of geographers in land planning. Education 60(4):229-231. December 1939.

Wehrwein,G.S. The Colorado planning and zoning enabling act. Jour. Land and Pub.Util.Econ.15(4):483-485. November 1939.

Welborn,Roland and Folken,H.G. Land and man.Summarizing the 1939 reports of Iowa's county agricultural planning committees who look not only at the land but at the man who farms it... Iowa Farm Econ.5(4): 6-8. October 1939.

Rainfall

Gay,R.W. Rainfall records and studies in Tennessee Valley Authority. Amer.Met.Soc.Bul.20(9):378-383,tables. November 1939.

Lokhov,V.P. The measurement of rainfall retained by the forests as determined by artificial means. Meteorologiya i Gidrologiya 4(6): 97-104. 1938.
Article in Russian.

Range and Pasture Management

Burcalow,F.V. Renovation makes pastures profitable. Better Crops with Plant Food 23(9):15-18,42-43,illus. November 1939.

Clawson,Marion. Range carrying capacity and private ownership. U.S.Fur.Agr.Econ. Land Policy Rev.2(6):17-23. November-December 1939.

Langley,P.C.and Fisher,C.E. Some effects of contour listing on native grass pastures. Amer.Soc.Agron.Jour.31(11):972-981,figs., tables. November 1939.
"Literature cited,"p.981.

Nelson, E.W. and Wasser, C.H. Reseeding with grasses native to Colorado increases forage crops on depleted ranges. Colo. Farm Bul. 1(1):9-13. Jan/Mar. 1939.

"Reseeding practices suggested as productive on depleted ranges in different parts of the State include good soil, drilling seed of adapted grasses from 0.75 to 1.5 in. deep - preferably 1 in. deep and early on well-prepared seedbeds, seeding in high stubble where soil blowing occurs or after vegetation is removed in nonblowing areas, mowing weeds on newly seeded areas, where practicable, at least twice a year, and permitting no grazing in the 1st year after seeding. Improvement by better grazing systems should be tried before artificial reseeding is attempted." - Biol. Abs. 13(9):15559. November 1939.

Range forage utilization. Cattleman 26(8):45-47, table. January 1940.

Paper presented to the Extension Section of the American Society of Animal Production, Chicago, Illinois, December 1-3, 1939.

Stewart, George and Young, A.E. The hazard of basing permanent grazing capacity on Bromus tectorum. Amer. Soc. Agron. Jour. 31(12):1002-1015, tables, figrs. December 1939.

Young, V.A. Soil erosion in relation to overgrazing in Idaho. Northwest Sci. 13(2):48. May 1939.

"Short note outlining the necessary conservation practices, including deferred and rotation grazing, proper utilization of different types of livestock, artificial reseeding, etc. - P.O.W." Imp. Bur. Pastures and Forage Crops. Herbage Abs. 9(4):350. December 1939.

Regionalism

Hertzler, J.O. Some sociological aspects of American regionalism. Social Forces 18(1):17-29. October 1939.

"The historical processes of invasion and succession in the various regions are fairly well known. These processes are now taking new forms, however. What are they? The effect of such recent changes as those occasioned by new developments in technology (the mechanical cotton picker, for example) by the drought, the depression, or such New Deal activities as the TVA, the great power and irrigation projects in the Missouri, Colorado, and Columbia basins, or even crop control, erosion control, and rural resettlement have been only sporadically examined. As they produce migrations from or into a given region, or within a region, how does this affect the ecological balance of the region."

Run-off

Hendrickson, B.H. A preliminary study of variability of run-off plots. Soil Conserv. 5(5):128-130, table, graphs. November 1939.

Snow Surveying

McLaughlin, W.W. Factors affecting run-off forecasts based on snow surveys. Soil Conserv. 5(6):148-151, 163, illus. December 1939.

Marr, J.C. and Ewing, P.A. Snow surveying. Soil Conserv. 5(6):144-147, illus. December 1939.

Soil Conservation

Bowen, Gordon. Some aspects of conservation in the United States. Scot. Geog. Mag. 55(5):257-270, figrs., plates. September 1939. "Bibliographical notes," pp. 269-270.

Cities as the chief despoilers of the land. The problem of saving fertility which farmers pour into the towns which send it to the sea or up in smoke. Farmer's Weekly, Bloemfontein, 57:380-381, 383, illus. Apr. 19, 1939.
Shows how the health of the nation is bound up with the health of the soil.

Engene, S.A. and Pond, G.A. Checking conservation plans by budgeting. Minn. Univ. Agr. Ext. Div. Farm Business Notes no. 203:1-2, tables. November 1939.
Presents a farm budget worked out for a Winona county, Minnesota farmer to control erosion and promote soil conservation.

Johnson, E.C. Farm-credit policy as a factor in soil conservation. Jour. Land and Pub. Util. Econ. 15(4):377-382. November 1939.

McManus R.C. Sherlocks of the soil. Country Home 63(12):12, 25-26. December 1939.
The author says: "I have just finished playing the role of guileless Dr. Watson to a number of the nation's most famous soil Sherlocks, and never, in my days as a police reporter, did I cover a jewel robbery more thrilling than the earthly mysteries which these men solve day after day in orchard, truck patch and field. These dirt detectives have uncovered countless soil thefts - thefts which were costing farmers millions of dollars a year - and they have developed marvelous fertilizing practices for replacing the stolen goods in the earth. They have prevented the ruination of whole sections of farming land; they have restored vast tracts of abandoned land to productivity, and they have opened the way for bringing great areas of naturally poor soil under agricultural production."

Stewart, G.R. Conservation practices in primitive agriculture of the southwest. Soil Conserv. 5(5):112-115, 131, illus., figrs. November 1939.

Uhland, R.E. Quantitative basis for evaluating effectiveness and application of soil conservation practices. Soil Conserv. 5(6):152-156, tables. December 1939.
Table I. "Erosion factors expressed in percentage of top seven inches. (1000 tons) of soil lost annually through erosion by water for different crops or cropping systems on different degrees and lengths of slope."
Table III. "Efficiency of soil conservation practices. (Based upon relative soil losses from various systems of cropping on slopes of variable lengths and degrees, supplemented by different supporting treatments.)"

Soil Conservation. Study and Teaching.

Beard,W.P. Social viewpoint in conservation education. Social Ed.3(9):637-640. December 1939.
"This discussion of conservation education comes from the educational specialist in the Division of Information and Education of the Forest Service,United States Department of Agriculture."

Logan,S.R. Learning to work with nature. Natl.Parent-Teacher Mag.34(4):5-8,illus. December 1939.
How to stimulate in boys and girls a regard for the Nation's resources;an intelligent understanding of the methods,significance, and applications of science;and a desire to work cooperatively with nature are discussed.

A ridiculous way to farm. Kans.Farmer 76(23):3,16. Nov.18,1939.
"Not long ago a farmer was heard remarking about the beauty of a nicely terraced field - streamlined,if you please.How many farmers would have thought of such a thing a few years ago?For it was only a few years back when the majority of farmers considered terracing and contour farming as utterly ridiculous.Those who saw possibilities in the plan considered it more as a necessary evil - a curse of farming ridges,crooked rows and point rows for the necessity of checking gullies.When you come to think of it,there's quite some change from this viewpoint to the stage of thinking terraces are beautiful."

Weaver,R.L. The problem of conservation in teacher education from the standpoint of the national,federal,and juvenile organizations. School Sci.and Math.39(9):818-823. December 1939.
Gives sources of outlines,syllabi,references and guides to conservation material a s well as a few suggestions for adaptation to teaching requirements.The Soil Conservation Service is included among the sources.

Soil Erosion and Control

Relationship of rainfall/evaporation ratio to erosion. Past.Rev.49 (8):916,illus. Aug.16,1939.
Quotes from correspondence between Dr.H.H.Bennett and V.R.Alldis of New South Wales.

Rogers,H.T. The relation between soil reaction,erosion,and aggregation of silt and clay in Clarksville loam. Amer.Soc.Agron.Jour.31 (11):915-923,figrs.,tables. November 1939.
"Literature cited,"pp.922-923.

Wallace,Tom. My personal forest. Nature Mag.32(10):590-592,illus. December 1939.
A newspaper editor bought a farm and let nature assist him in controlling erosion.

Soil Erosion and Control. Foreign Countries.

Cater,J.C. Deforestation and soil erosion in Trinidad. Trop.Agr. (Trinidad)16(10):230-232,figrs. October 1939.
October 1939.
"Deforestation and soil erosion in the foothills of the northern range caused by shifting cultivation."

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"In this article,Mr.Hodgson suggests that,as far as the farm lands of the State,New South Wales,are concerned,the most urgent call is to the individual farmer to render more efficient his system of management,crop rotation,etc.,so as to build up and conserve the fertility of the soil and not expose the land itself to the erosion hazard."

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2.Aggregate and clod analysis of the soil.
3.From a purely research point of view to obtain any information on penetration or compressibility that it might be feasible to procure."
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"After the hydrograph of the river flows had been constructed,the storage requirements and power output of the plant were estimated by a new method involving the construction of a probable future hydrograph,based on laws of probable occurrence and well-defined trends of long-period variations in river flows.Due to the greater value of water in the semi-arid regions,particularly in periods of low flow, special treatment has been given to drought periods involving methods of probable sequence of drought years.
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"Wildlife management apparently has not yet recognized that the soil and soil crops are the capital stock they have to work with, and that wildlife is the interest on this capital.Our people dug deeply into the capital stock(range deterioration)while there was plenty of interest(surplus game animals starved)to operate on...
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BOOK AND PAMPHLET NOTES AND ABSTRACTS

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Partial contents:The history of floods in southern California, by H.B.Lynch,pp.6-8;Rainfall and runoff from San Gabriel mountains during flood of March 1938,by M.F.Burke,pp.8-15;The functions of debris-dams and the loss of reservoir-capacity through silting,by E.C.Kenyon,jr.,pp.16-20;Hydraulic design of flood-control basins and channels,by J.G.Jobes,pp.22-26;Silt problems of the west,by J.C.Stevens,pp.26-32;Ground-water problems of the southern high plains,by W.N.White,pp.32-35;The national flood-control program in the United States Department of agriculture,by H.E.Reddick,pp. 42-45;Flood control in California,by Edward Hyatt,pp.46-50;Improvements in the methods of forecasting stream-flow,by Carl Elges,pp.62-66;The use of precipitation-gage measurements in forecasting the inflow to Lake Mead,by O.C.Reedy,pp.67-69;Symposium on the limit of practicable usefulness of snow-surveys made in the headwater-regions when used for preducting runoff at localities quite removed from the courses.Fort Peck reservoir,by D.B.Freeman,pp.99-101;Northern Rocky mountains,by H.T.Gisborne,p.101;Smaller watersheds,by J.P.Bonner,p. 102;Correlation of head water streams of north continental divide, by P.W.Monson,pp.102-106;Symposium on effect of soil-priming by fall precipitation on spring runoff.Upper Snake basin,by J.C.Marr,pp.106-109;Analysis of snow-cover and runoff in upper Snake,upper Yellowstone and Swift Current watersheds,by O.W.Monson,pp.110-117;Relation of fall stream-flow to spring runoff,by H.C.Eagle,pp.117-121;The influence of autumn rainfall on the runoff from melting snow,by R.C.Farrow,pp.121-124.

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L.K.Sherman,pp.174-186;The measurement and computation of flood-discharge,by C.G.Paulsen,pp.177-187;Recent development in flood-forecasting,by Merrill Bernard,pp.187-193;Stream-flow forecasting by snow-surveying,by G.D.Clyde,pp.194-195;Estimating maximum flood-flow as a basis for the design of protective works,by G.A.Hathaway, pp.195-203;Relation of headwaters control to the national program of flood-protection,by A.C.Ringland,pp.203-204;The mathematical synthesis of the flood-hydrograph,by R.T.Zoch,pp.207-218;Economic aspects of flood-forecasting,by G.F.White,pp.218-233.

Part III.Reports and papers,general assembly and sections of geodysy,seismology,meteorology,terrestrial magnetism and electricity, oceanography and volcanology.

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Partial contents:Report of committee on snow 1938-1939,pp.489-517; Report of committee on evaporation from water-surfaces,March 1939, p.517;Report of committee on absorption and transpiration 1938-1939, pp.523-524;Report of the committee on runoff,1938-1939,pp.524-525; Appendix A - Observations of rainfall,runoff and sedimentation of United States Soil conservation service,by R.S.Goodridge,pp.525-529; Appendix A-1.Particulars regarding experimental forests and work-centers for hydrologic research by Edward Munns,pp.540-541;Report of the committee on physics of soil-moisture,1938-1939,pp.543-545; Report of the committee on underground waters,1938-39;pp.545-555; Report of committee on dynamics of streams,pp.555-557;Bibliography on investigations of regimen of rivers and bed-load studies,pp.557-579;Report of a special committee on flood-waves,1938-39,p.580-Appendix A. - Report of the sub-committee on bibliography,including a Bibliography on flood-waves and related phenomena,pp.581-606;Appendix B - Report of sub-committee on current investigations of special committee on flood-waves,pp.607-608;Report of the committee on rainfall,1938-39,pp.611-612;Report of hydrologic advisory committee to the research division of the United States soil conservation service,pp.612-614;Report of joint committee on hydrologic relations between the section of hydrology of the American geophysical union and the Division of soil and water conservation of the American society of agricultural engineers,pp.614-616;List of current publications to accompany report of the committee on snow,pp.617-631;Addendum to bibliography on snow and ice,pp.631-635;The relation of suspended bed material in rivers,by E.W.Lane and A.A.Kalinske,pp.637-641; Velocity-distribution in open channels,by E.H.Taylor,pp.641-643; Studies of the transition-region between laminar and turbulent flow in open-channels,by L.G.Straub,pp.649-653;Some experiments on shallow flows over a grassed slope,by W.O.Ree,pp.653-656;Artificial drainage of land:stream-line experiments.The artesian basin - I., by Don Kirkham,pp.677-680;The role of evaporation in the hydrologic cycle,by C.W.Thornthwaite and Benjamin Holzman,pp.680-686;Soil moisture content under various conservation practices,by O.R.Neal, pp.686-690;Analysis of runoff-plat experiments with varying infiltration-capacity,by R.E.Horton,pp.693-711;A conception of runoff-phenomena,by F.F.Snyder,pp.725-738.

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"Directory of agencies engaged in conservation activities,"pp.22-29.

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Bennett,H.H. Soil conservation. 993pp.,illus. New York and London, McGraw-Hill book co.,inc.,1939. 56.7 B43S

Written by the chief of the U.S.Soil Conservation Service this volume"Soil Conservation"explores the wide ramification of the land problem into many fields - physics,chemistry and biology,economics and sociology,climate,soils,ecology geology,engineering,and others. The point is stressed that lasting accomplishment - a permanent agriculture - can be achieved only by coordinating the knowledge of many sciences toward a common objective.Major emphasis is placed on (1)the erosion process;(2)physical effects of erosion on land,vegetation,and agriculture;(3)economic,social and human-welfare aspects of the erosion problem;(4)relation of erosion to floods and siltation; (5)conservation action(work on the land);(6)techniques,plans and programs for soil and water conservation;(7)search for new and improved methods for defense of the soil resource and for conservation of rainfall,wildlife and other resources dependent on the land; and(8)results obtained through(a)direct and coordinate application of conservation techniques and (b)education.More concisely,the primary objective of this volume is to present a comprehensive statement of the science and practice of soil and water conservation. Simplification of presentation is sought through division of the material under two major groupings:Part 1:The Problem;Part 2:Soil Conservation." --Preface.

Chapter headings are:The problem in the United States;Erosion and civilization;Results of erosion;Processes and types of erosion;Rates of erosion and runoff;Relation of physical and chemical properties of soils to the erosion problem;Climate and soil erosion;Infiltration in relation to runoff,the erosion process and the utilization of rainfall;Relation of erosion to crop yields;Relation of erosion to vegetative changes;Sedimentation;Mass movement an important process of soil wastage;Geology and soil erosion; Relation of entomology to erosion·A national program of soil conservation;Agronomic practices in soil and water conservation;Farm and range plants useful for erosion control and water conservation;The place of forestry in soil and water conservation;Contouring;Terracing;Runoff-disposal channelways and outlets;Subsoiling and other subsurface tillage operations; Gully prevention and control;Control of erosion on highways;Small dams for water storage;Erosion of stream banks;Water spreading;Wildlife and soil conservation;Soil conservation and flood control;Atlantic and gulf coastal plain region;Southern Appalachian region;Northern Appalachian and New England area;Central prairie and eastern timbered border region;Ozark highlands;The Great plains;Edwards plateau - Fort Worth prairie;Colorado river basin area;Pacific northwest region; Pacific southwest region;Early efforts toward erosion control;Erosion problems in foreign countries;Research,an arm of coordinated land use: Soil conservation surveys.

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A textbook prepared for a semester course in conservation.

Date growers' institute. Report of fifteenth annual...institute held in Coachella valley,California,April 9,1938. 29pp.,illus. Published by Coachella valley farm center,[1938?] 81 D26,15th,1938.
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Gives information on vegetation,soil erosion,grasslands,pasture work in the Department of agriculture and cites the importance of pastoral research in Kenya.

Fink,O.E. Gone with the wind and water. 44 numb.l.,mimeogr. Zanesville,Ohio,1938. 279 F492
"This material has been written and assembled to be used in the course of study of the junior high schools(ninth grade)by O.E.Fink, vice-chairman,committee on conservation United States junior chamber of commerce of Zanesville,Ohio."

Gaul,J.J. Reclamation 1902-1938:a supplemental bibliography...Published by the Denver public library and the State department of education as a report on official project no.665-84-3-59,Work project no.3787,conducted under the auspices of the works progress administration,Division of professional and service projects. Bibliographical Center for Res.,Rocky Mt.Reg.Reg.Checklist 6. 98 numb.l.,processed. Denver,Colorado,May 1939. 241.4 G23
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Bibliography,pp.367-386.
"The objective of this revision is to present the subject of forest entomology from the forestry viewpoint.The emphasis is placed on the influence of insects on the forest rather than on the insects themselves.This is the chief reason for adopting the ecological rather than the taxonomic arrangement of species."

Guise,C.H. The management of farm woodlands. 352pp.,illus. New York and London,McGraw-Hill book company,inc.,1939. 99.55 G94
"It is the purpose of this text to provide the technical information that will aid in solving the problems of woodland management and in stimulating good silvicultural and utilization practice.
"The Management of Farm Woodlands is designed primarily to meet the needs of students in agricultural colleges and other institutions where instruction in farm forestry is offered.It should also be of direct assistance to the owners of farm woodlands and forest estates, and to others who are concerned with the practice of forestry on these lands.The material included in this book is applicable to the farm woods of several acres as well as to the larger woodlands not

sufficiently extensive to be included in the commercially operated forests.

"Most farm woodlands lie in eastern United States,and it is for the woodlands of the East that this book has been especially prepared." ...Preface.

Houston,Tex.Public schools.Junior high school department. Conserving nature's gifts to America. 79pp.,illus.;processed. Houston, 1938. 279H81

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Partial contents:The method of proximate analysis and its application to the study of plant residues,composts and humus formations, by Selman A. Waksman,pp.101-119;Microbial activity in relation to organic matter transformation in the soil,pp.120-129.

Kansas state board of agriculture. Utilization of legumes. Kans. State Bd.Agr.Rpt.v.58,no.233. 59pp.,illus. Topeka,October 1939. 2 K13Re

King,H.W. Manning formula tables for solving hydraulic problems. Volume II.Flow in open channels. 379pp. New York and London, McGraw-Hill book company,inc.,1939. 290 K58M v.2

"Contains channel dimensions in feet of specified sectional forms for given discharges and coefficients of roughness that correspond to different rates of loss of head."

Legget,R.F. Geology and engineering. 650pp.,illus. New York and London,McGraw-Hill book company,inc.,1939. 290 L523

Part I.An introduction to geology.

Part II.Geology as applied in civil engineering.

This section includes chapters of earth movement and landslides; foundations of dams;reservoirs and catchments areas;erosion and silting;water supply and ground water.

Part III.Reference section.

Includes glossary of geological terms commonly encountered; geological surveys of the English speaking world;geological societies and periodicals.

Lowdermilk,W.C. Reflections in a graveyard of civilizations. Christian Rural Fellowship Bul.45. 8pp.,processed. New York, October 1939. Reprint File

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McMinn,H.E. An illustrated manual of California shrubs,with a chapter on the use of California shrubs in the garden design,by Fred H. Schumacher. 689pp.,illus. San Francisco,J.W.Stacey,inc.,1939. Bibliography,pp.643-647. 455.82 M22

Massachusetts state planning board. Drainage basin studies. 4 nos., mimeogr. Boston 1938-1939. 280.7 M38D
No.2,Connecticut river;no.3,Farmington river;no.4,Millers river; no.5,Deerfield river.

Moore,H.R.and Predmore,M.L. Tax delinquent rural land unadapted to agriculture in southeastern Ohio. Ohio State Univ.Col.Agr.Dept. Rural Econ.Mimeogr.Bul.117. 11 numb.l.,mimeogr. Columbus,February 1939. 281.9 Oh32 no.117

National education association of the United States. Proceedings of the seventy-seventh annual meeting held in San Francisco July 2-6, 1939.Volume 77.. 991pp. Washington,D.C.,National education association of the United States,[1939] 275.9 N21
Among the abstracts of papers is the following:A land use program for the senior high school,by Helen M.Strong,p.614.

National research council.Division of geology and geography. Committee on sedimentation. Report...April 29,1939.(Appendix B of annual report of the division with exhibits A-G) 102pp.,mimeogr. Washington,D.C.,1939. 400 N21 1938-39
Exhibit A,Annotated bibliography of sedimentation studies by the Soil Conservation Service,1938-1939,by C.B.Brown,pp.11-18;Exhibit B,Recent German studies of sediments,by C. .Correns,pp.19-43;Exhibit D,Annotated bibliography of recent Russian publications on sedimentation,by P.D.Krynine,pp.51-64;Selected list of references on the transport of detritus,by L.G.Straub,pp.65-74;The pipette method modified for mass production,by Gordon Rittenhouse,pp.88-102.

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Neurath,Otto. Modern man in the making. 159pp.,illus. New York & London,Alfred A.Knopf,1939. 280 N392
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The book presents material which everybody will find useful in interpreting statistics published in newspapers or reference books. It shows connections between facts instead of discussing them.

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Thesis(Ph.D) - University of Nebraska

Nyasaland protectorate.Forestry department. Annual report...for the year ended 31st December,1938. 53pp. Zomba,Printed and published by the govt.printer,1939. 99.9 N982
Report of the soil erosion branch,pp.39-46.
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in part that "the Government's slow but steadily growing recognition of the extreme importance of fertility as the basal necessity in a food emergency is of the highest possible significance, and the £ 2 subsidy, although introduced avowedly as an emergency measure, and operative over a too short period, and not at the most suitable period at that, almost certainly marks a turning point in the affairs and prosperity of agriculture and of rural Britain."

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